

Adoption of Photo Catalysis in Tertiary Water Treatment

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Abstract—*Photo catalysis is a rapidly expanding technology for wastewater treatment. Photo catalytic degradation in general is used in destruction of both organic and inorganic contaminants commonly existing in water. Photo degradation of organic pollutants has recently been the most widely investigated treatment process. Titaniadue to its cheap availability, inert nature and good photo stability has played a much larger role in this scenario in comparison to other semiconductor photo catalysts. The tertiary water treatment plants existing world over at present and particularly in developing countries do not include a step for remediation of many emerging contaminants like medicine residues, pesticides and dyes etc. The presence of these contaminants in drinking water having originated from different sources is well established and thus poses a great threat to all living creatures. The present review offers an overview of the latest trends in the use of the TiO₂photocatalysisas remediation and decontamination process of wastewater treatment to address these emerging contaminants.*